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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/809,542	03/26/2004	Tetsuji Suzuki	26069	6130
20529	7590	03/13/2006	EXAMINER	
NATH & ASSOCIATES 112 South West Street Alexandria, VA 22314			BLACKMAN, ROCHELLE ANN J	
			ART UNIT	PAPER NUMBER
			2851	

DATE MAILED: 03/13/2006

Please find below and/or attached an Office communication concerning this application or proceeding.

# Office Action Summary

Application No.

10/809,542

Applicant(s)

SUZUKI ET AL.

Examiner

Rochelle Blackman

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

## Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

## Status

- 1) ☒ Responsive to communication(s) filed on 03 January 2006.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

## Disposition of Claims

- 4) ☒ Claim(s) 1-10 is/are pending in the application.
- 4a) Of the above claim(s) 4-10 is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 1-3 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

## Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 26 March 2004 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

## Priority under 35 U.S.C. § 119

- 12) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☒ All b) ☐ Some \* c) ☐ None of:
- 1) ☒ Certified copies of the priority documents have been received.
  - 2) ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
  - 3) ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

## Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☒ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)  
Paper No(s)/Mail Date 4/13/04
- 4) ☐ Interview Summary (PTO-413)  
Paper No(s)/Mail Date. \_\_\_\_\_
- 5) ☐ Notice of Informal Patent Application (PTO-152)
- 6) ☐ Other: \_\_\_\_\_

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## **DETAILED ACTION**

### ***Election/Restrictions***

Applicant's election without traverse of Species I(A), shown in Figure 2, drawn to claims 1-3 in the reply filed on January 3, 2006 and in a telephone interview with Derrick Richmond shortly thereafter, is acknowledged.

### ***Claim Objections***

Claim 1 is objected to because of the following informalities: on pg. 41, line 18, - - the- - should be inserted between "which" and "color". Appropriate correction is required.

### ***Claim Rejections - 35 USC § 103***

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

Claims 1-3 are rejected under 35 U.S.C. 103(a) as being unpatentable over Magarill et al (U.S. Patent Application Publication No. 2002/0154420) in view of Shimizu et al. (U.S. Patent Application Publication No. 20020180932).

Regarding claim 1, Magarill discloses a projection display apparatus (see *projection system* in paragraph [0062]) comprising: a color separating and synthesis

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optical system (see FIG. 5) comprising a first polarized light separating means (see 27 closest to element 25 in FIG. 5), a second polarized light separating means (see 27 closest to element 5C in FIG. 5), a third polarized light separating means (see 13 of 15D of FIG. 5 along with paragraph [0063]) and a fourth polarized light separating means (see 13 of 15C of FIG. 5 along with paragraph [0063]) wherein said first, second, third and fourth light separating means are disposed in respective diagonal directions therein (see location of elements 27, 13 of 15D, and 13 of 15C in FIG. 5), said first polarized light separating means is disposed on that side on which illuminating light is incident and said fourth polarized light separating means is disposed on that side at which projection is performed, a first reflective type spatial light modulating elements (see 5C of FIG. 5) disposed on either the opposite side with respect to that side of said second polarized light separating means (see 27 closest to 5C) on which said first polarized light separating means (see 27 closest to 25) is disposed or the opposite side with respect to that side on which said fourth polarized light separating means (see 13 of 15C) is disposed, a second reflective type spatial light modulating elements (see 5B of FIG. 5) disposed on the opposite side with respect to that side of said third polarized light separating means (see 13 of 15D) on which said first polarized light separating means (see 27 closest to 25) is disposed, and a third reflective type spatial light modulating elements (see 5B of FIG. 5) disposed on the opposite side with respect to that side of said third polarized light separating means (see 13 of 15D) on which said fourth polarized light separating means (see 13 of 15C) is disposed, in which color separating and synthesis optical system, after light including light of the three primary

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colors made in advance into light of determined polarization from light of indeterminate polarization is separated into the respective primary colors by said first, second and third polarized light separating means, and after each respective color undergoes modulation coordinated to an image signal for each respective color and is reflected by the respective said first, second and third reflective type spatial light modulating elements, color synthesis is performed and a color image is generated by said second, third and fourth polarized light separating means (see function of elements in the FIG. 5); and a projection lens (although not shown, the *projection system* in paragraph [0062] is considered to have a projection lens in order for the *projection system* to function) for expansively projecting said color image generated by said color separating and synthesis optical system; wherein at least two from among said first, second, third and fourth polarized light separating means are wire grid polarized light separating plates (see elements 27 of FIG. 5).

Regarding claims 1-3, Magarill does not appear to disclose "a lens for correcting astigmatism is disposed near the side of the reflective surface of at least one from among said first, second and third reflective type spatial light modulating elements; wherein said astigmatism correcting lens is a cylindrical lens; and wherein the surface of said cylindrical lens is an aspheric, toroidal surface".

Shimizu discloses a lens (see 526 of FIG. 7 along with paragraphs [0069] and [0081] and/or 426 of FIG. 11 along with paragraphs [0069] and [0099]) for correcting astigmatism is disposed near a side of a reflective surface of at least one from among a first, second and third reflective type spatial light modulating elements; wherein said

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astigmatism correcting lens is a cylindrical lens (see paragraphs [0069], [0081], and [0099]); and wherein the surface of said cylindrical lens is an aspheric, toroidal surface (see structure of "lens" 526 in FIG. 7 and/or 426 in FIG. 11).

It would have been obvious to one ordinary skill in the art at the time the invention was made to provide the projection display apparatus of the Magrill reference with a cylindrical lens that is an aspheric, toroidal surface that corrects astigmatism disposed near a side of a reflective surface of at least one from among the first, second, and third reflective type spatial light modulating elements as taught by Shimizu, in order to compensate for astigmatism introduced by the tilted "wire grid polarized light separating plates" (see paragraphs [0069], [0081], and [0099]).

### ***Conclusion***

The prior art made of record and not relied upon is considered pertinent to applicant's disclosure.

De Vaan et al. (U.S. Patent No. 6,873,469), Projection Device with Wire Grid Polarizers: see entire document.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Rochelle Blackman whose telephone number is (571) 272-2113. The examiner can normally be reached on M-F 8:00-4:30.

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If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Judy Nguyen can be reached on (571) 272-2258. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

A handwritten signature in black ink, appearing to read "W B Perkey", with a long horizontal flourish extending to the right.

RB

**William Perkey**  
**Primary Examiner**